

Date: Sun, 10 Jul 94 04:30:27 PDT  
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>  
Errors-To: Ham-Equip-Errors@UCSD.Edu  
Reply-To: Ham-Equip@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Equip Digest V94 #225  
To: Ham-Equip

Ham-Equip Digest                      Sun, 10 Jul 94                      Volume 94 : Issue    225

Today's Topics:

Hallicrafters SX-71 Service Data  
    Marine VHF  
    Micor cabinet keys  
    mods for Kenwoods TH-28A  
    Timewave DSP  
    TS450 to PK232 Hookup  
Wal-Mart 900MHz ATV transmitter?  
What Dual Band Should I Buy?  
Yaesu 990 (2 msgs)

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>  
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 9 Jul 1994 14:20:27 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!jobone!lynx.unm.edu!nntp.sunbelt.net!  
MEHUGHES%ORG.TEC.SC.US@network.ucsd.edu  
Subject: Hallicrafters SX-71 Service Data  
To: ham-equip@ucsd.edu

Reply: Hallicrafters SX-71 Service Data

Ardco Electronics  
P.O. Box 95  
Berwyn, Ill. 60402  
(They handle only Hallicrafters data. Excellent service)

SAMS Photofact Folder # 111 covered the SX-71. It's out of print but a local radio/TV repair shop might have a copy.  
If not call SAMS at 800-428-7267. They will sell you a photocopy at a reasonable price.

Hi-Manuals  
Box L-802  
Council Bluffs, Iowa 51502  
(They do not give quotes, you must send \$2.00 for a catalog. They cover most ham rigs from 1935 thru 1970.)

Don't expect much in the manual. Most had a diagram, alignment instructions, and perhaps the ### dial cord stringing instructions. Good luck. SAMS says this is a 1950 model, I was born in 1951.

Mark Hughes      WB4UHI    MEHUGHES@OCT1.ORG.TEC.SC.US  
Electronics Engineering Technology  
Orangeburg-Calhoun Technical College  
Orangeburg, SC

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Date: Fri, 8 Jul 1994 15:03:02  
From: usc!howland.reston.ans.net!europa.eng.gtefsd.com!newsxfer.itd.umich.edu!ncar!asuvax!pitstop.mcd.mot.com!mcdphx!schbbs!mothost!mdisea!uw-coco!nwnexus!olympus.net!olympus.net!@@ihnp4.ucsd.edu  
Subject: Marine VHF  
To: ham-equip@ucsd.edu

>Please excuse some dumb questions....but.....

>- What frequencies are those 'Marine VHF' radios I've seen at the boat shop?

>- What special license/permits/tests are required from the FCC (or ?) to operate on these freqs?

>After what seemed like waiting forever, just got my ticket! 8-> 8->  
>Just wondering about modifying my HT (if possible) for use on marine bands  
>when I'm out floating...

>- Tom Baltz    KC5HEG  
>    trb@cray.com

Tom, The marine band covers 156.25 to 157.425 on the transmit side and from

156.25 to 162.44 on the receive side.

A station license is required to operate them in us territorial waters, outside us waters a third class radiotelephone permit is required. Your ht is not type accepted for this use and modifying it will break the law. But, and this is cool, some marine band radios have separate power amplifier assemblies and some of these work real well as two meter amplifiers. I converted one that gave me 60 watts with 100mw input. And it had a very clean signal.

William Vaughn      vaughnwt@olympus.net "Just plain Bill."

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Date: Sat, 9 Jul 1994 18:46:51 UNDEFINED  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!zip.eecs.umich.edu!yeshua.marcam.com!insosf1.infonet.net!  
s083.infonet.net!remhof@network.ucsd.edu  
Subject: Micor cabinet keys  
To: ham-equip@ucsd.edu

In article <mbarts.12.001551E4@vt.edu> mbarts@vt.edu (Michael Barts) writes:

>Someone broke into our repeater building and stole the key to our repeater  
>cabinet (of all things!). Of course we don't have a duplicate.

>The repeater is a Motorola Micor in its cabinet. Does anybody know if the  
>locks on these things is uniquely keyed or is it a generic key? We have a  
>key blank but no way of knowing how to cut it. Anyone have experience with  
>these things?

Go to your local Motorola two-way shop and ask for a 2135 key. They probably have several hundred collected from numerous installs over the years.

Jerry, W0CI

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Date: Sun, 10 Jul 94 01:24:25 GMT  
From: sequent!muncher.sequent.com!justin@uunet.uu.net  
Subject: mods for Kenwoods TH-28A  
To: ham-equip@ucsd.edu

I recently purchased Kenwood's TH-28A radio. I had the intentions of it receiving far more freqs. than it does. I can only seem to RX on 136-170Mhz & 400-519Mhz I was really expecting the radio to be able to get freqs. like 45-900Mhz. I know this is not impossible but maybe with this radio. BUT I was curious if ANYONE knows of ANY ways to get freqs. like 45-47Mhz and 880Mhz. If there is a mod sheet

anywhere that would help too. I talked to a guy at HRO and he said that there was a way to expand its range v

ia keypad. He said to hit the function key(F) down for one second and the low key. I tried it and I just got the SAME freqs. Maybe it is some other combo.??? BUT I would GREATLY appreciate any and ALL help available.

Regards,  
Justin

(justin@sequent.com)

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Date: 10 Jul 1994 03:00:56 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!zip.eecs.umich.edu!  
yeshua.marcam.com!hookup!ukma!asuvax!chnews!scorpion.ch.intel.com!  
cmoore@network.ucsd.edu  
Subject: Timewave DSP  
To: ham-equip@ucsd.edu

In article <58520002@hpcc01.corp.hp.com>,  
Stephen M Trapp <trapps@hpcc01.corp.hp.com> wrote:  
>Do the Timewave DSP boxes use more than 8 bits. I've heard the 'GR boxes  
>require riding the volume control when tunig from loud to quiet signals,  
>are these any better? 73, Steve Trapp, N4DG  
>

Hi Steve, Timewave told me that their A/D system is a 16-bit sigma/delta system with a single-pole sigma filter. They wouldn't tell me what adaptive filtering algorithms they use.

A 16-bit system gives you a lot more headroom so "riding the volume control" is not as much of a problem. With the approximately 50 dB dynamic range of an 8-bit system, you have to "ride the volume control" to keep the 8-bit value at near full scale but not saturated. With the 16-bit system, you can set the input for a full-scale 12-bit value and not worry if the signals vary between 16-bit and 8-bit full scale values.

A 16-bit sigma/delta system with a three-pole front end would be better at eliminating quantization noise than the Timewave design.

73, KG7BK, 00TC, CecilMoore@Delphi.com

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Date: Sat, 9 Jul 1994 15:19:31 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!  
rogjd@network.ucsd.edu

Subject: TS450 to PK232 Hookup  
To: ham-equip@ucsd.edu

Maurice Nunas (nunas@solomon.technet.sg) wrote:

: Does anyone out there have a PK232 hooked to a TS450?

: I cannot hook the AFSK output from the pk232 to the Kenwood accy jack and  
: get it to work.

: What happens is heavy distortion when I try to use the mic.

: AEA is aware of the problem and say to use FSK. Fine, but what if I  
: would rather be able to use AFSK (eg, you can easily change the shift on  
: it and you cannot on FSK).

: The problem seems like some sort of ground loop fault.

: Any ideas ???

: Thanks from the land of endless summer . . .

: Maurice Nunas

You really should use FSK rather than AFSK. The receiver works much better if you have the 500 hz filters. The difference between a 200 Hz and a 170 Hz shift is nonexistent anyway. BTW, my 850 will allow me to select the FSK shift. Doesn't the 450 have that option (not that it matters).

73

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rogjd@netcom.com  
Glendale, CA  
AB6WR

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Date: Sat, 9 Jul 1994 12:42:15 GMT  
From: ihnp4.ucsd.edu!swrinde!emory!europa.eng.gtefsd.com!sundog.tiac.net!  
usenet.elf.com!rpi!psinntp!darkstar!elt@network.ucsd.edu  
Subject: Wal-Mart 900MHz ATV transmitter?  
To: ham-equip@ucsd.edu

Hi Steve, welcome to Amateur Radio's loneliest mode ...

In article <STEVE.94Jul7220003@susie.vigra.com> steve@vigra.com writes:  
>Wal-Mart has an interesting gizmo called a "Video Wireless VCR

>Multiplier" for \$29.95. It's similar to the Gemini Rabbit TV  
>transmitter/receiver pairs, but this one is still in production and  
>stocked.  
>  
>I bought one to experiment with, and it seems to have some promise for  
>ATV work. The transmitter has two output frequencies, each with a  
>tweak pot inside next to the selector switch. It seems to be able to  
>put out a signal anywhere from 905 to 926 MHz with some stability. I  
>have no idea what the (low) output power is, though, and the sparse  
>docs don't say.

I've don't a lot of Rabbit surgery, haven't seen the Wal-Mart box yet.  
The Rabbit put out about 1-3 mW depending on the unit. Mine seemed  
to wander a bit, a couple of hundred kc. Seems to me that would take  
the signal out of the receivers audio range but the receivers seems  
to track okay. You could tell by watching a pic for a while, then  
turn the receiver off and back on ... the picture wouldn't be there,  
you had to retune.

Tweek pots on the \_Radio Shack\_ rabbits tuned the L0; another pot  
under the can at the antenna controlled output power. Just crank  
that one all the way up... (Ain't it great being a ham? :-)

I'm very interested to find out how good the W-M unit is.

>There is a new ATV repeater here on Mt. Palomar (San Diego) with a  
>919.25 MHz input frequency, which is well within range for this  
>transmitter. I'm looking at a small amplifier advertised by Down East  
>Microwave. This "DEM 3310PA" 902-928MHz 10W amplifier seems  
>impressive for \$150 (less for kits). It only needs 10mW of input  
>drive, so I would guess that the Wal-Mart box can make it happy.

>  
>Has anyone tried a setup like this? I'm looking for any tips on where  
>to install an antenna output jack, since the unit has only a screw-in  
>mini telescopic now. My inclination is to just install a BNC jack  
>connected to ground and the current antenna post. Will I have any  
>serious problems with impedance mismatch?

I didn't see any impedance matching on either the receivers or the  
xmitters other than (perhaps) the transistor in the first (or final)  
stages. Go inside and cut, break, unsolder that antenna and use  
whatever connector fits ... For the receiver, I use an F connector  
and run a RadioShack \_satelite\_ video amplifier into it. I had LOS to  
our repeater when it was on a hilltop 40 miles away and this setup  
picked it up just fine!

>This certainly seems like a cheaper way to go than commercial ham ATV  
>transmitters. Am I missing something?

Maybe you don't like the bulge that you still have in your wallet?

Do watch out for spurs from the transmitter. Around here, the interdigital filters made for cellular-bases go for about ten dollars. (As best I recall,) chopping a quarter inch off the rods moved them up to the ATV band. You'll want to tune the whole thing up into your antenna with a spectrum analyser to make sure you're not putting too much trash into the band.

- Ed.

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Ed Taychert | No plants or animals were killed to create this message.  
elt@irony.com | It is composed entirely of recycled computer bits.  
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Date: Sat, 9 Jul 1994 15:13:48 GMT

From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!csulb.edu!csus.edu!  
netcom.com!rogjd@network.ucsd.edu

Subject: What Dual Band Should I Buy?

To: ham-equip@ucsd.edu

rk@vectorbd.com wrote:

: Michael A. Hotz (mahjmac@netcom.com) wrote:

: : I'm heading for my nearest HRO tomorrow afternoon, and plan on coming  
: : back with a new mobile 2m / 70cm rig. I've narrowed it down to several  
: : choices based on what I've read in their catalog, and I would like  
: : input or opinions from folks who have any of these radios, or know of  
: : others with comparable features in the same \$\$\$ range (700-800)

: I've become very curious about why people purchase dual-band rigs.  
: From my point of view, a HT should be an efficient communications  
: device. And yet, people insist on buying these wideband-RX  
: gadgets that get swamped with intermod if you look at them cross-eyed,  
: have receivers that are noticeably less sensitive than even cheap  
: single-banders, have low output power and battery capacity, and  
: become unusable if you try to attach an external antenna to them.

: Or is the ability to communicate no longer a priority with  
: amateur radio operators? :-)

: - Rich

I think he's talking about mobile radios, not HTs. Dual banders don't get swamped with intermod the way HTs do, even with extended receive.

BTW, my vote is for the Kenwood. Contrary to what others say, I've had very good luck with their service department, and that 733 is a really great radio, just as the 732A was.

Good luck.

73

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rogjd@netcom.com  
Glendale, CA  
AB6WR

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Date: 7 Jul 1994 21:10:37 GMT  
From: ihnp4.ucsd.edu!swrinde!pipex!doc.ic.ac.uk!aixssc.uk.ibm.com!  
watnews.watson.ibm.com!sernews.raleigh.ibm.com!usenet@network.ucsd.edu  
Subject: Yaesu 990  
To: ham-equip@ucsd.edu

I would be interested in opinions on the Yaesu 990, good, bad, indifferent.  
Is it worth the bucks?

John Zimmatore  
IBM Atlanta  
zim@vnet.ibm.com

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Date: 10 Jul 94 00:57:57 GMT  
From: news.delphi.com!BIX.com!hamilton@uunet.uu.net  
Subject: Yaesu 990  
To: ham-equip@ucsd.edu

zim@vnet.ibm.com writes:

>I would be interested in opinions on the Yaesu 990, good, bad, indifferent.  
>Is it worth the bucks?

>John Zimmatore  
>IBM Atlanta  
>zim@vnet.ibm.com

I have an FT-990 and am very pleased with it. I found it to be a great compromise between the slightly under-featured 890 below it and the over-featured 1000 above it. (The difference in price for the configurations I was considering was about 20% for the 890 vs.



the 990 and about 50% for the 990 vs. the 1000; the 990 was clearly more than 20% more radio than the 890 but the 1000 was not clearly 1/2 again more radio in my hands.)

Features that I really liked about the 990: 10-key tuning pad, filter options down to 250Hz for CW, the "digital" audio filter (it's not really digital, but it is very good), packet and rtty modes.

The only downsides I know of to the 990 are somewhat less than terrific fidelity for SWL (if you expect to listen to a lot of music from foreign broadcast stations on SW, this is probably not the radio for you) and an imperfect placement of front-panel buttons (the row at the bottom is somewhat obscured by the knobs above them). Also, I really wish they'd added a loop on the back for putting a DSP in between the preamp and power amp stages, like you might do with a stereo system.

I chose my 990 after a LOT of research -- asking other hams for opinions, reading up on the product reviews (get the ARRL Radio Buyer's Sourcebooks, Vol 1 & 2 -- the best \$30 you'll ever spend!), calling the vendors (you'll find it instructive to call Yaesu, Icom and Kenwood and ask, "Why should I buy your radio?"), talking with dealers ("What's the most popular rig in the \$2000 price range?" "If I buy X today, what will it be worth in trade-in a year from now?"), and sitting in the dealer showroom playing with the knobs.

Before you drop a big chunk of money on a radio, you owe it to yourself to check it out carefully. You're on the right track with this post. Keep it up! My sense is that it's hard to go wrong with the 990, but more important is that you choose the radio YOU like best. Other people's opinions don't matter so much. :-)

Regards,

Doug Hamilton    KD1UJ    hamilton@bix.com    Ph 508-358-5715  
Hamilton Laboratories, 13 Old Farm Road, Wayland, MA 01778-3117, USA

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End of Ham-Equip Digest V94 #225

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